

Reduced intensity regimen prior to marrow transplant better for older leukemia patients

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A new study led by researchers at the Ohio State University Comprehensive Cancer Center – Arthur G. James Cancer Hospital and Richard J. Solove Research Institute (OSUCCC – James) shows that preparing older acute myeloid leukemia (AML) patients for bone marrow transplants with a reduced intensity conditioning regimen appears to be associated with higher rates of disease-free survival relative to the more typical treatments usually given to such patients. The study was presented at the 2012 American Society of Hematology (ASH) Annual Meeting in Atlanta, GA.

Typically, the prognosis for older AML patients is poor. Even in patients who achieve complete remission through chemotherapy, [survival rates](#) remain low due to high risk of relapse. While blood or [bone marrow transplants](#) can be a viable option for younger patients, conventional preparative regimens leading up to the procedure are often too toxic for patients over the age of 60.

"With a reduced intensity regimen leading up to a transplant, the disease free survival rate in older patients reached 39 percent," said Steven M. Devine, MD, Professor of [Internal Medicine](#) in the Division of [Hematology](#) at The Ohio State University Comprehensive Cancer Center, and director of the Blood and Marrow Transplant Program. "These outcomes are better than those achieved using more [conventional treatments](#) and warrant additional comparison research and studies focused on preventing relapse in this patient population."

Methodology & Results

The objective of the Phase II, prospective, multi-center trial was to determine the feasibility and effectiveness of a uniform reduced intensity conditioning regimen prior to a blood cell transplant in older AML patients in clinical remission. The primary endpoint of the study was two-year disease-free survival. Researchers hypothesized that disease-free survival at two years would exceed 20 percent. One hundred twenty three AML patients in first clinical remission following chemotherapy, ages 60-74, were transplanted at 21 centers across the country. Forty seven percent of patients had match related donors and 53 percent had unrelated donors. All but eight patients (who received fludarabine and busulfan alone) were conditioned with the same regimen containing fludarabine (30mg/m²/day x 5), busulfan (6.4mg/kg IV total dose) and antithymocyte globulin (7.5mg/kg total dose). One case of primary graft failure was reported. Rates of both acute and chronic graft vs host disease and treatment related mortality were relatively low. There were no unexpected toxicities associated with these transplants.. Relapse was the most common cause of death.

Provided by Ohio State University Medical Center

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